

CLAIMS

1. A method for routing packets in a network for use in providing alert services, comprising:

5 receiving a packet having a header section and a payload section, the payload section including information relating to a video clip from a particular camera;

inspecting the payload section of the packet in a network core for use in determining how to route the packet to subscribers to information from the particular camera; and

selectively routing the packet based upon the inspecting.

10 2. The method of claim 1 wherein the inspecting step includes determining whether information in the payload section matches content predicate information in a structure associating the content predicate information with corresponding network destinations.

3. The method of claim 1, further including performing the inspecting step at a router in the network core.

15 4. The method of claim 1 wherein the inspecting step includes applying a filter to information in the payload section.

5. The method of claim 4, further including propagating the filter to a router in the network for use in performing the inspecting.

20 6. The method of claim 1, further including programming a router in the network for performing the receiving, inspecting, and routing steps.

7. The method of claim 1 wherein the inspecting step includes inspecting attributes for use in determining how to route the packet.

8. The method of claim 1 wherein the selectively routing step comprises selectively routing the packet to a digital video surveillance system.

25 9. The method of claim 1, further including performing the inspecting step in a local-area network.

10. The method of claim 1, further including performing the inspecting step at an internet service provider location.

11. The method of claim 1 wherein the particular camera comprises a digital video recorder and a charge coupled device.
12. The method of claim 11 further comprising the digital video recorder generating the packet having the header section and the payload section, the payload section
5 including information relating to the video clip from the particular camera.
13. A method for routing messages in a network providing alert services, comprising:
receiving a message having a header section, at least one subject, and at least one attribute, the attribute relating to a video clip from a particular camera;
retrieving the subject and the attribute from the message;
10 retrieving a subscription based upon the subject; and
applying the attribute to the subscription in a network core in order to determine how to route the message to a subscriber to information from the particular camera.
14. The method of claim 13 wherein the retrieving the subscription step includes retrieving a filter corresponding with the subscription.
- 15 15. The method of claim 13, further including routing the message if the attribute satisfies the subscription.
16. The method of claim 13, further including discarding the message if the attribute does not satisfy the subscription.
17. The method of claim 13, further including:
20 retrieving a plurality of filters corresponding with a plurality of subscriptions;
retrieving a plurality of attributes from the message;
applying each of the attributes to each of the filters to determine if any of the corresponding subscriptions are satisfied; and
selectively routing the message based upon whether any of the subscriptions are
25 satisfied.
18. The method of claim 13, further including performing the applying step at a router in the network core.
19. The method of claim 13 wherein the particular camera comprises a digital video recorder and a charge coupled device.

20. The method of claim 19 further comprising the digital video recorder generating the message having the header section, the at least one subject, and the at least one attribute, the attribute relating to a video clip from the particular camera.

21. A method for routing packets in a network for use in providing alert services,
5 comprising:

receiving a packet having a header section and a payload section, the payload section including information relating to an event for a particular alert service;

inspecting the payload section of the packet in a network core for use in determining how to route the packet to subscribers to information for the alert service;
10 and

selectively routing the packet based upon the inspecting.

22. An apparatus for routing packets in a network for use in providing alert services, comprising:

a receive module for receiving a packet having a header section and a payload
15 section, the payload section including information relating to a video clip from a particular camera;

an inspect module for inspecting the payload section of the packet in a network core for use in determining how to route the packet to subscribers to information from the particular camera; and

20 a rout module for selectively routing the packet based upon the inspecting.

23. The apparatus of claim 22 wherein the inspect module includes a module for determining whether information in the payload section matches content predicate information in a structure associating the content predicate information with corresponding network destinations or corresponding rules governing in-router
25 processing.

24. The apparatus of claim 22, further including a module for performing the inspecting step at a router in the network core.

25. The apparatus of claim 22 wherein the inspect module includes a module for applying a filter to information in the payload section.

26. The apparatus of claim 25, further including a module for propagating the filter to a router in the network for use in performing the inspecting.
27. The apparatus of claim 22, further including a module for programming a router in the network for performing the receiving, inspecting, and processing.
- 5 28. The apparatus of claim 22 wherein the inspect module includes a module for inspecting attributes for use in determining how to route the packet.
29. The apparatus of claim 22, wherein the apparatus is located in a network comprising digital video recorders.
30. The apparatus of claim 22, wherein the particular camera comprises a digital
10 video recorder and a charge coupled device.
31. An apparatus for routing messages in a network providing alert services, comprising:
- a receive module for receiving a message having a header section, at least one subject, and at least one attribute, the attribute relating to a video clip from a particular
15 camera;
 - a module for retrieving the subject and the attribute from the message;
 - a module for retrieving a subscription based upon the subject;
 - an apply module for applying the attribute to the subscription in a network core in order to determine how to route the message to a subscriber to information from the
20 particular camera.
32. The apparatus of claim 31 wherein the module for retrieving the subscription includes a module for retrieving a filter corresponding with the subscription.
33. The apparatus of claim 31, further including a module for selective routing the message if the attribute satisfies the subscription and based on the quality of service
25 guarantee.
34. The apparatus of claim 31, further including a module for discarding the message if the attribute does not satisfy all subscriptions.
35. The apparatus of claim 31, further including:

a module for retrieving a plurality of filters corresponding with a plurality of subscriptions;

a module for retrieving a plurality of attributes from the message;

a module for applying each of the attributes to each of the filters to determine if
5 any of the corresponding subscriptions are satisfied; and

a module for selectively routing the message based upon whether any of the subscriptions are satisfied.

36. The apparatus of claim 31, further including one or more modules for performing the applying at a router in the network core.

10 37. The apparatus of claim 31, wherein the apparatus is located in a network comprising digital video recorders.

38. The apparatus of claim 31, wherein the particular camera comprises a digital video recorder and a charge coupled device.

39. A system for routing packets in a network for use in providing alert services,
15 comprising:

a plurality of digital video cameras, wherein the digital video cameras produce a digital video output;

a local area network (LAN) connecting the digital video cameras;

a publisher agent, connected to the LAN, that publishes the digital video output;

20 a publish-subscribe network, connected to the publisher agent; and,

a digital video surveillance system (DVSS) that receive the published digital video output via the publish-subscribe network.

40. The system of claim 39, further comprising a subscriber agent, connected to the publish-subscribe network, that subscribes to the digital video output and pushes the
25 subscribed digital video output to the DVSS.

41. The system of claim 39, wherein the publish-subscribe network comprises a plurality of intelligent routers.

42. The system of claim 41, wherein the intelligent router includes:

a receive module for receiving a packet having a header section and a payload section, the payload section including information relating to digital video content from one of the plurality of digital video cameras;

5 an inspect module for inspecting the payload section of the packet in a network core for use in determining how to route the packet to subscribers to information from the digital video camera; and

a rout module for selectively routing the packet based upon the inspecting.